

FEATURE ARTICLE: GREEN JOBS - Surveying Green Jobs in
the Greater Virginia, Maryland, and Washington, D.C. Area



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VIRGINIA
Economic Indicators

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Publication Staff: Don Lillywhite, *Editor*; Joan McDorman, *Assistant Editor*; Linda Simmons, *Graphic Design/Layout*

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FOREWORD

For those who are interested in studying the business cycle, the *Virginia Economic Indicators* publication is designed to depict the movement of the key economic indicator series readily available in Virginia. Most of these series are published elsewhere; but here, they are brought together in both graphic and tabular form, under one cover, and grouped so that they may be analyzed and interpreted easily.

All but five of the series currently used are produced in-house by the Economic Information Services Division of the Virginia Employment Commission and are comparable to similar national series produced by the U.S. Department of Labor. The five business indicators are provided by sources outside of the agency (see the Historical Summary at the back of this publication for data sources) and should prove useful to the student of business cycle development in Virginia.

All series published in the *Indicators* have been seasonally adjusted to minimize regular seasonal fluctuations in the data in order to show only activity related to the business cycle. The *Virginia Economic Indicators* is the only seasonally adjusted publication of some of the Virginia series.

From time to time, new series will be added to this report as the data becomes available and is collected and tested. Also, series presently provided, if necessary, may be discontinued. Historical graphs are published in the back of the fourth quarter issue for each year.

This publication provides a narrative analysis update of the U.S. economy and narrative analysis of recent changes in Virginia. Occasionally, feature articles dealing with some currently important aspects of the Virginia economy are presented. Feature articles are written in-house or by guest authors knowledgeable on particular economics-related subjects.

This publication is normally produced quarterly by April, July, October, and February, but data in the series is provided on a monthly basis. There is a time lag of one quarter before all the data series are available for publication and analysis.

With the 2002 benchmarks in 2003, all states were required to switch to the North American Industry Classification System (NAICS) codes which replace the Standard Industrial Classification (SIC) codes formerly used. The NAICS codes were updated in 2007. The NAICS conversion affects the factory employment series and the four hours-and-earnings series in that, where 2001 - 2009 data has been revised to NAICS, data prior to this time is still on the old SIC basis with more manufacturing industries. This means a slight break in these series when comparisons are made with former periods prior to 2001.

The main change to manufacturing is that, under NAICS, newspapers and publishing houses are no longer included in manufacturing, and so their employment and earnings are missing from revised 2001 - 2009 data.

The U.S. forecast analysis is based on the IHS Global Insight projections which the state purchases. Virginia estimates use the state model with enhancements from VEC data for the areas.

Please address your comments to:

Don Lillywhite, Director

Economic Information Services Division
Virginia Employment Commission

P.O. Box 1358

Richmond, Virginia 23218-1358

(804) 786-7496

Donald.Lillywhite@vec.virginia.gov

For additional information or explanation of the contents of this document, you may contact the Economic/Operations Research section at (804) 786-7497 or James.Wilson@vec.virginia.gov.

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U.S. ECONOMIC OUTLOOK

Timothy O. Kestner, Economist

Tim.Kestner@vec.virginia.gov

We had anticipated first quarter Gross Domestic Product (GDP) to be around 2.6 percent, significantly lower than the prior quarter's rate of 5.6 percent; we are pleased to report that GDP is closer to 3.0 percent in the first three-month period of 2010. As noted in the last issue of *Economic Indicators*, the robust growth in the final quarter of 2009 was mostly attributable to an inventory increase, not growth based on consumer spending. Promisingly, first quarter growth was fueled by a healthy contribution from personal consumption—in spite of paralyzing snowstorms.

First Quarter 2010 Review and Outlook

The most impressionable memory of the First Quarter 2010 is not that growth was based on a more sustainable and desirable indicator such as personal consumption expenditures (PCE)—which we should be gleeful about; it was the weather, not the cold, but the snowstorms of February. With back-to-back snowstorms early in the month that tormented the Atlantic states with six days of accumulations, many more days digging out (or hunkering down), and a third equally severe snowstorm

that blasted southern New England during the last week of February, it was odd to think that we may indeed be moving into a period of expansion. Local and state governments closed offices, and federal offices in the District of Columbia were shut down nearly a week. Plants and offices were closed by many employers, and many more employees just stayed at home, less they placed their lives at risk. College classes were cancelled, and parents of primary and junior-high school children were sequestered for days upon days (and yet we live to write articles—ah, resilience) as these institutions shut down for even longer periods less they risk the lives of the children. For the month of February, some regions of the East Coast saw little production.

Although commerce, transportation, public service, education, and ordinary life were disrupted here on the East Coast, we have to be mindful that it was just here and only in regions of the East Coast. For the West Coast, Mid-West, and Central regions the winter of 2010 was quite normal. We have a tendency to see ourselves existing in a vacuum, and under conditions such as 24-plus inches of snow that lingers around our “cabin door” for weeks, along with the non-stop media obsessions with situations such as this (they're on the East Coast too), we have difficulty seeing beyond our own misery. In an article read during the “big melt,” the author effectively noted that typical natural occurrences such as snowstorms and hurricanes do not distort GDP figures in a significant manner. Some commerce is lost, certainly, but most is just delayed. This article also reminded me that we may wish to toss the outliers from February's employment reports—yet, then again, only certain regional East Coast data!

The robust and most welcomed 5.6 percent GDP growth in the last period of 2009 wasn't repeated in the first quarter of 2010, and, as noted, we knew that it would not. That growth stemmed from an increase in inventory stock—not sales to consumers. However, the actions of the producers during the fourth quarter of 2010 were an indication of their hope (and predictions) for increased personal consumption. Thankfully, they were correct.

The positive contributing sectors to the 3.0 percent growth in first quarter GDP, as detailed by the Bureau of Economic Analysis' (BEA) “second estimate” in May's press release, were personal consumption expenditures, private



inventory investment, exports, and nonresidential fixed investments.



Real personal consumption expenditures (adjusted for inflation) include durable as well as non-durable goods. As we had hoped, PCE did increase in the first quarter, by 3.5 percent contrasted to the 1.6 percent growth in the fourth quarter. As a point of reference, PCE had hit a low of -0.9 percent in the second quarter of 2009. The purchase of refrigerators, machine and hand tools, clothing, and food products along with education and health care—goods and services that provide for and sustain our lives—compose two-thirds of our gross domestic product at any given time. For the first quarter 2010, it was closer to 70 percent—translation: \$10.4 trillion in a \$14.6 trillion economy. This component is vital to the fundamental nature of capitalist economies. Unlike prior recoveries, consumer spending cannot, by its own power, spearhead the current business cycle. This much-needed bulwark of the economy has awakened to find itself hobbled by indebtedness, less “wealthy,” and impeded by a sickly financial sector that lacks the fortitude to make loans, which were 5.4 percent less than a year ago—March-over-March. Lastly, while the 3.5 percent growth was a welcomed action by the consumer—a sign of increased confidence—that spending came at the “expense” of less savings (3.9 to 3.1 percent)—not higher incomes. While we think incomes will rise as employment and hours worked increase in the upcoming quarters of 2010, savings will continue to average 3.2 percent throughout 2010.

Private inventory investment grew 14.7 percent from fourth quarter as businesses and corporations added to or increased their capital stock. This actually represents a considerable decline from the prior quarter (46.1 percent), yet still quite positive. More perspective—private inventory investment had been as low as 50.5 percent in first quarter 2009; so, year-over-year 14.7 percent is great. This growth is the outcome of purchases of business equipment and software which grew by 12.7 percent—down from 19 percent in the fourth quarter—yet double-digit growth is not to be frowned upon. We see the sector as increasing in strength throughout 2010 as businesses have plenty of cash to spend, and need to do so—believe it or not, a record-setting \$1.84 trillion in cash and other liquid assets at the end of the first quarter as reported by the Federal Reserve Bank.

The export component of GDP grew 7.2 percent from the fourth to the first quarter. This was a decline in percentage of growth quarter-over-previous-quarter (22.8 percent in 4Q2009). Yet here again, we can place this into perspective by recalling that exports were off by 29.9 percent in the first quarter of 2009, on the heels of a decline of 19.5 percent in the fourth quarter of 2008! We expect exports to rise to around 14 percent in the second quarter and then to trail down between nine to seven percent in the later quarters, with 2011 seeing even lower values. The cause is a strengthening U.S. dollar. European budget problems, caused by, or out of fear of contagion of Greece’s sovereign debt, have induced foreign governments to hedge against their real or presumed shaky assets by purchasing U.S. Treasury securities. Two immediate effects of this action dampen employment growth and industrial output. For U.S. exports this is a negative effect, as our domestic goods become more expensive to purchase by foreign consumers, because they have to use more Euros, for example, to purchase those goods. U.S. consumers find foreign goods more appealing because they are less costly to purchase, and consequently U.S. consumers spend less dollars than before. This not only widens our trade deficit with our trading partners, but it also reduces domestic employment in those industries that compete (especially as we move into 2011) with European firms.

Placing a positive face on this is the always happily embraced decline in commodity prices, which is partially brought on by a reduction in the cost of oil, since everything we purchase has an oil component. The positive here should be that we see manufacturing costs, inflation, and long-term interest rates held in check. Crude oil may fall as low as the mid \$60 per barrel range by mid-summer: an oddity given the season.



The larger significance of the strengthening dollar is that it is not a sign of real confidence in our economy; it's that we have the safest asset—disconcerting at best. It is wise to be mindful that Greece's inability to meet their financial obligations to their creditors and their citizens alike, came after years of neglecting to adjust their spending relative to borrowing. The irony here is that foreign governments and investors are seeking sanctuary in U.S. treasuries and dollars as our own fiscal position worsens with no sign of reversal or a plan to correct it. It seems inevitable that at some point in time, perhaps not in the next two, three, or even five years, that those same investors and governments will flee our "assets" to find safer harbors. This newfound world importance that the U.S. enjoys will likely conceal (as it has been noted in other publications) our economic weakness and delay the much-needed attention from our government and public alike to put our fiscal house in order. It is in a real sense, a slippery slope.

Investments in non-residential structures declined for the seventh straight quarter, yet even at -15.3 percent, it was better than the -18.0 percent recorded in the fourth quarter of 2009. By some estimates, non-residential structures will not see positive growth until the third quarter of 2011—low growth at that, yet certainly welcomed. If this assumption holds true, that would be twelve straight quarters of negative growth—unprecedented.

The residential investments entered the new decade at -10.7 percent, after posting two positive quarters. The residential sector of private domestic investment has actually endured more negative quarters than non-residential, but as we hold our breath and cling to hope, it is expected to crawl from the gloom of the last recession by the second quarter of 2010 and hover in the low double digits for the foreseeable future.

Hopes of U. S. employment growth continue to be supported by a leveling of the unemployment rate. U.S. unemployment held steady at 9.7 percent for each month of the first quarter as we moved beyond the double-digit levels of the fourth quarter. The number of employed outpaced the level of unemployed. The growth of more than 700,000 in the civilian labor force is a promising sign that employers are staging to begin hiring soon. This could shore up confidence in the attitudes of workers, unless the unemployment rates that we believe will hover in the mid-9 percent range chip away at those gains. Continued growth in jobs and incomes will be the tide that will lift all other vessels, which underscores the going consensus that this recovery will be long and likely uncertain at times.



VIRGINIA INDICATORS

James P. Wilson, Senior Economist
James.Wilson@vec.virginia.gov



Highlights

- By March 2010, nonfarm employment had shown some improvement from Fourth Quarter 2009, but was still 168,000 below its pre-recession high of 3,780,200 achieved in April 2008.
- The total unemployment rate moved into the lower seven percent range, approaching the upper seven percent range seen in the aftermath of the 1981-82 recession.
- Initial claims are running 25 percent below the recessionary highs reached in the first half of 2009, but remain about 50 percent higher than their pre-recession levels.
- Unemployment insurance final payments dropped about 19 percent from Fourth Quarter 2009 levels, but the percentage of claimants who exhausted their benefits set a record of nearly 54 percent in January before falling the next two months.
- Mining and Logging employment fell to a record low in January and stayed there for the rest of the quarter.
- Manufacturing's continued decline can be seen in the record lows set in February 2010: manufacturing employment at 228,600 and total production hours at 7,156,000.
- Some good news in manufacturing was average hourly earnings (unadjusted for inflation) for production workers set records in February and March. The inflation-adjusted average hourly earnings were nearing the record set last September. Average weekly hours have remained above year-ago levels.
- Private Education and Health Services employment set record highs in January and February. Most of the gain was in the Health Care and Social Assistance subsector.
- Miscellaneous Services employment set record highs all three months of the quarter. This sector, which includes Repair and Maintenance, likely is growing as consumers decide to repair what they have instead of buying new products.
- Federal Government employment rose significantly in March as workers were being hired for the 2010 Census.
- The erratic movement shown by some of the business indicators is partly attributable to repeated major snow storms that occurred in the first quarter.
- New vehicle registrations, while still below pre-recession highs, did, however, post year-over-year increases for all three months of the quarter.

Around the State

Because the metropolitan data are not seasonally adjusted, over-the-year analysis (First Quarter 2010 versus First Quarter 2009) is used.

Statewide there were 73,500 jobs lost, or 2.0 percent of nonfarm employment. All sectors lost employment except Private Education and Health Services (11,000 jobs or 2.5 percent), Federal Government (7,300 or 4.5 percent), and State Government (1,600 or 1.1 percent). Most of the State Government's growth occurred in areas with large state institutions of higher education. The sectors with the

largest losses were Construction (18,300 or 9.5 percent), Manufacturing (17,900 or 7.3 percent), Local Government (16,000 or 4.1 percent), and Professional and Business Services (11,300 or 1.8 percent). The state's unemployment rate rose from 6.5 percent to 7.7 percent.

Richmond MSA lost 19,700 jobs, or 3.2 percent of nonfarm employment, and had losses in all sectors except Private Education and Health Services (4,900 jobs or 6.0 percent), Miscellaneous Services (1,000 or 3.2 percent), and Federal Government (500 or 3.3 percent). The largest losses occurred in Professional and Business Services (4,500 or 4.7 percent), Manufacturing (3,900 or 10.8 percent), Construction (3,400 or 9.3 percent), and Retail Trade (3,000 or 4.6 percent). Over 40 percent of the Professional and Business Services loss occurred in Employment Services (1,900 or 7.1 percent), indicating employers were not adding temporary workers as a prelude to hiring full-time employees. There were also losses in Local Government (2,500) and Finance, Insurance, and Real Estate (2,000). Although Leisure and Hospitality declined (1,600 or 3.3 percent), its Accommodation and Food Services subsector grew (400). The area's unemployment rate stayed above the state rate, rising from 7.0 percent (versus 6.5 percent) to 8.5 percent (versus 7.7 percent).

Virginia Beach-Norfolk-Newport News, Virginia/North Carolina MSA lost 12,100 jobs, or 1.6 percent of nonfarm employment. The biggest losses were in the Local Government (4,500 jobs or 5.0 percent), Professional and Business Services (3,600 or 3.5 percent), Construction (2,900 or 7.3 percent), and Manufacturing (2,100 or 3.8 percent) sectors. About half of the Professional and Business Services loss occurred in Employment Services (1,700), indicating employers were not adding temporary workers as a prelude to hiring full-time employees. Most of Manufacturing's loss was in durable goods (1,200), but there was a small gain in Ship and Boat Building (700). Most of the Finance, Insurance, and Real Estate sector's decline (1,500) was in the Banking and Insurance subsector (1,300). The Wholesale, Retail, Transportation, and Information sectors all lost about 1,000 jobs. There were small gains in the Leisure and Hospitality Services (2,900), Federal Government (1,500), State Government (1,300), and Private Education and Health Services (1,100) sectors. About one-fourth of Leisure and Hospitality's increase was in Accommodation and Food Services. The area's unemployment rate stayed slightly above the state rate, rising from 6.6 percent (versus 6.5 percent) to 7.9 percent (versus 7.7 percent).

Northern Virginia MSA lost 10,000 jobs, or 0.8 percent of nonfarm employment, with major losses in the Construction (7,200 jobs or 10.5 percent), Local Government (5,400 or 4.4 percent), and Information (4,500 or 9.9 percent) sectors. These sector losses were partly offset by gains in Federal Government (4,600 or 5.6 percent), Private Education and Health (4,700 or 3.7 percent), and Retail Trade (3,400 or 2.6 percent). Health Care and Social Assistance gains (5,100) were slightly offset by losses in Private Education (400). There were smaller gains in Miscellaneous Services and State Government. The remaining sectors all had losses, except for Leisure and Hospitality, which was neutral. Most of the Finance, Insurance, and Real Estate loss (1,400) was in the real estate subsector. The area's unemployment rate was the lowest among the state's MSAs, but rose from 5.3 percent to 5.8 percent—half as much as the state's increase from 6.5 percent to 7.7 percent.

Roanoke MSA lost 4,000 jobs, or 2.5 percent of nonfarm employment. The largest losses were in the Manufacturing (1,300 jobs or 8.3 percent), Construction (900 or 10.0 percent), and Retail Trade (800 or 4.5 percent) sectors. Manufacturing had a permanent layoff in the automobile parts industry. Offsetting the losses were gains of less than 1,000 each in the Private Education and Health Services, Leisure and Hospitality Services, Federal Government, and Transportation, Warehousing, and Utilities sectors. The area's unemployment rate increased faster than the state, going from 6.7 percent to 8.3 percent (versus 6.5 percent to 7.7 percent).

Winchester MSA lost 2,300 jobs, or 4.2 percent of nonfarm employment. The largest decline occurred in the Private Service Providing sector (1,700 jobs or 4.7 percent). Also experiencing a large decrease was the Goods Producing (800 or 8.1 percent) sector, which consists of Mining, Construction, and Manufacturing. There were temporary layoffs in the manufacture of rubber and plastics. A 200 loss in the Local Government sector reduced by half the total gain of 400 in Federal and State Government sectors. The area's unemployment rate continued above the state rate, rising from 7.9 percent to 8.1 percent.

Lynchburg MSA lost 2,200 jobs, or 2.1 percent of nonfarm employment. While there was a major loss in the Trade, Transportation, and Utilities (600 jobs or 3.1 percent) sector, Retail Trade had a small gain (100). Manufacturing's loss (700 or 4.8 percent) was partly attributable to temporary layoffs in the furniture industry. There was a smaller loss in State Government (300). Local Government posted a gain, the only one for that sector in the state. The area's unemployment rate remained above the state average,



increasing from 7.1 percent to 8.6 percent, but the gap widened.

Charlottesville MSA lost 1,800 jobs, or 1.8 percent of nonfarm employment. The largest losses occurred in the Goods Producing, (700 jobs or 7.5 percent), Leisure and Hospitality (500 or 4.8 percent), State Government (500 or 2.3 percent), and Trade, Transportation, and Utilities (400 jobs or 2.8 percent) sectors. The Goods Producing sector, which is composed of Mining, Construction, and Manufacturing, had permanent layoffs in textile products manufacturing. The Federal Government was the only sector with a gain (100). Unemployment increased from 5.3 percent to 6.5 percent, remaining well below the state average.

Danville MSA lost 1,400 jobs, or 3.4 percent of nonfarm employment. Major losses were experienced in Manufacturing (400 jobs or 6.3 percent) and Trade, Transportation, and Utilities (200 jobs or 3.2 percent). State and Local Government each decreased by 100 jobs, while no publishable sector had an increase. The area's unemployment rate was the highest among the state's MSAs and remained in the double digits, increasing from 11.8 percent to 12.7 percent.

Blacksburg-Christiansburg-Radford MSA lost 1,300 jobs, or 1.9 percent of nonfarm employment. State Government gains (200) partly offset losses in the Goods Producing (1,300) and Private Service Providing (200) sectors. The Goods Producing sector, which is composed of Mining,

Construction, and Manufacturing, had temporary layoffs in the manufacture of motor vehicles, chemicals, and electrical equipment. The area's unemployment rate remained above the state's rate, rising from 8.0 percent to 9.3 percent.

Harrisonburg MSA lost 400 jobs, or 0.6 percent of nonfarm employment. There were losses in the Goods Producing (700 jobs or 4.6 percent) and Local Government (100 or 1.9 percent) sectors. The Goods Producing sector, which is composed of Mining, Construction, and Manufacturing, had temporary layoffs in food manufacturing. The Private Service Providing sector had a net increase of 400 jobs, but one of its components, Retail Trade, lost 400. There were temporary layoffs in the food services industry. Although the area's unemployment rate rose from 6.0 percent to 7.2 percent, it was still below the state average of 7.7 percent.

NonMSA Total lost 18,400 jobs, or 4.4 percent of nonfarm employment. The total nonmetro area lost jobs over twice as fast as the state (seasonally unadjusted) rate of 2.0 percent. Small gains in State (1,900) and Federal (700) Government partly offset the large losses in the Private Service Providing (10,000 jobs or 4.1 percent) and Goods Producing (7,500 or 8.6 percent) sectors. The Goods Producing sector, which is composed of Mining, Construction, and Manufacturing, had permanent layoffs in furniture and electronics manufacturing and temporary layoffs in mining. Also showing a loss was Local Government (4,200 or 7.6 percent). The area's unemployment rose from 8.0 percent to 10.5 percent, much higher than the state rate of 7.7 percent.

Don Lillywhite, Director, Economic
Information Services Division
Donald.Lillywhite@vec.virginia.gov

A photograph showing a person's hands holding a large white sign with the words 'GREEN JOBS' in bold, dark green and maroon letters. The sign is held up in front of the U.S. Capitol dome in Washington, D.C., under a clear blue sky. Other smaller signs and a crowd are visible in the background.

Surveying Green Jobs in the Greater Virginia, Maryland, and Washington, D.C. Area

In the fall of 2009 a consortium of states, including the conglomerate of Virginia, Maryland, and Washington, D.C., received a State Labor Market Information (LMI) Improvement Grant (Green Jobs Grant) from the Department of Labor, Employment and Training Administration to explore the level and types of green jobs and the industries in which those jobs can be found. This information will be made available to the public in 2011. Thirty such grants were awarded to states nationwide for a total \$50 million. The awards were competitive.

The Virginia-Maryland-Washington, D.C. effort is a regional project that will be implemented by the Mid-Atlantic Regional Collaborative (MARC), which is composed of the State Workforce Agency leadership from the three states. Partners in the consortium include: Virginia Employment Commission; District of Columbia Department of Employment Services; Maryland Department of Labor, Licensing and Regulation; and the three-state Workforce Investment Boards. The Green Jobs Grant has four major deliverables:

1. Implementing a regional (Maryland, D.C., and Virginia) employer survey to capture the number, types, and skill requirements for “green jobs”
2. Disseminating survey findings and analysis;
3. Conducting related research; and
4. Establishing a regional integrated “green” employment and training portal and automated labor exchange.

In developing a green jobs definition, the MARC borrowed heavily from ongoing research and efforts of the Bureau of Labor Statistics (BLS) and several state green employment surveys conducted over the past several years. When finalized, BLS definitions, industry classifications, and core areas will set the standards nationally for identifying green jobs.

For purposes of this grant and the upcoming survey, the MARC has developed the following green jobs definition: green jobs involve work that helps to protect or restore the environment or help to conserve natural resources. We define a job as green when 50 percent or more of the worker's time is spent producing a product or supplying a service in one or more of the following seven core areas:

Core Areas	Examples include (but are not limited to)
1. Renewable energy and alternative fuels	Activities related to manufacturing, production, construction, design, research, delivery, operation, storage, maintenance and distribution of energy (electricity, heat, and fuel) from renewable sources, including wind, solar, biomass, hydrogen fuel cells, alternative transportation fuels, geothermal, ocean, methane, and waste incineration as a fuel source.
2. Energy efficiency and conservation	Manufacturing, construction, installation, production of energy-efficient products (such as Energy Star ¹ rated appliances, more efficient lighting), energy efficiency services, weatherization, building retrofitting/efficiency, energy-efficient production processes, energy distribution improvements (smart grid), transportation technology, and battery development and storage improvement. Overall increasing the energy efficiency of production processes, distribution, construction, installation, and maintenance.
3. Greenhouse gas reduction	Includes controlling and reducing emissions of CO ₂ , other greenhouse gases, wastewater, and other pollutants through approaches other than renewable energy generation and energy conservation. Includes generation of electricity from nuclear sources and reduction of greenhouse gas emissions in electricity generation from fossil fuels.
4. Pollution reduction and cleanup	Activities related to controlling commercial, transportation, and industrial emissions and pollution; water treatment, recycling operations, waste product management and treatment; activities to remove pollutants and hazardous waste from the environment.
5. Environmental cleanup and remediation and waste cleanup and mitigation	Environmental remediation including the cleanup and disposal of pollution, waste, wastewater, and hazardous materials; Superfund/Brownfield ² redevelopment; and landfill restoration.
6. Sustainable agriculture and natural resource conservation	Products and services to conserve, maintain, and improve natural resources and environment, including low carbon agriculture, land management, water management and conservation, wetlands restoration, and environmental conservation. Includes Bioscience-related activities. Includes reducing the environmental impact of agricultural production and improve natural resources conservation, including reducing use of chemical fertilizers and pesticides, soil and water conservation, sustainable forestry, land management, and wildlife conservation.
7. Education, compliance, public awareness and training directly related to activities 1-6 above.	Activities to educate the public, business, and government on energy efficiency, renewable energy, energy rating systems certifications (Energy Star, LEED ³), and more efficient energy consumption. Also informing appropriate parties and enforcing compliance requirements and regulations, promoting state energy standards and plans, and training on effective use of energy-related products and processes. In theory, energy trading could include buying and selling of power or fuels related to energy efficiency and renewable energy as well as cap and trade activity to control pollution.

¹ Energy Star is a government program that helps businesses and individuals protect the environment through superior energy efficiency.

² Brownfields are abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.


³ The Leadership in Energy and Environmental Design (LEED) LEED AP is an accreditation of professionals. Buildings are "designated" green, people are accredited LEED AP.

The BLS has identified 732 North American Industry Classification System (NAICS) codes as "Green NAICS Codes." For Virginia, the number of establishments that could possibly contain green jobs is 164,255, or approximately 75 percent of the total. The sample will be drawn from this universe so that green jobs data will be available for each of the state's 16 Workforce Investment Area geographies.


Maryland has 116,191 establishments (71 percent of the total) that could contain green jobs, while the District of Columbia has 21,994 (63 percent of the total) such establishments.

The green jobs survey will be mailed out to pre-selected employers in June 2010. Survey collection will conclude in mid-September. Initial survey results will be available in mid-October, and the final survey report and analysis will be released in 2011.

Employment Indicators*

	Nonagricultural Wage and Salary Employment (Thousands)		Total Unemployment Rate (Percent)	
	Unadjusted	Adjusted	Unadjusted	Adjusted
2009				
January	3,643.0	3,697.1	6.2	5.7
February	3,631.6	3,680.9	6.6	6.1
March	3,638.3	3,664.4	6.7	6.4
April	3,647.7	3,655.1	6.3	6.7
May	3,665.7	3,649.1	6.7	6.8
June	3,678.0	3,636.4	7.1	6.9
July	3,620.4	3,624.3	6.9	6.9
August	3,610.8	3,618.2	6.9	6.9
September	3,620.5	3,613.4	6.7	6.8
October	3,626.8	3,610.7	6.6	6.8
November	3,630.2	3,603.2	6.5	6.8
December	3,628.2	3,596.7	6.7	6.8
2010				
January	3,567.8	3,620.7	7.6	6.9
February	3,538.0	3,586.1	7.8	7.2
March	3,586.6	3,612.2	7.6	7.3

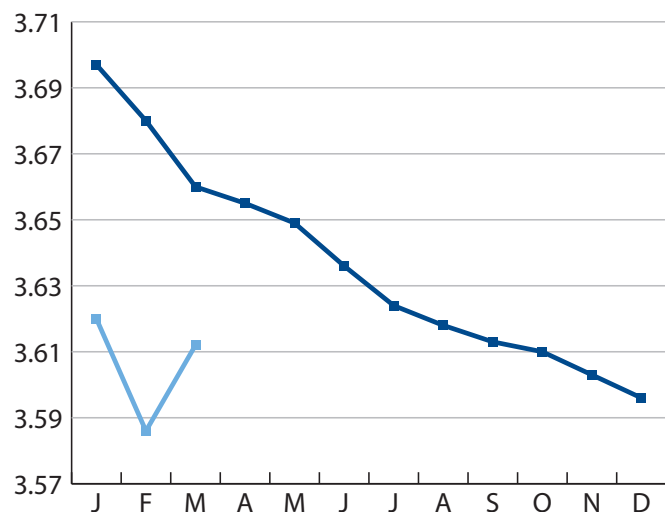
Unemployment Insurance Indicators

	Average Weekly Initial Claims		Insured Unemployment Rate (Percent)		Unemployment Insurance Final Payments	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
2009						
January	13,246	8,924	2.30	1.97	5,359	4,692
February	11,538	10,834	2.50	2.10	6,138	6,567
March	11,545	12,214	2.67	2.34	8,669	8,172
April	8,840	10,300	2.63	2.60	9,219	8,631
May	8,705	10,365	2.58	2.62	9,733	8,792
June	9,298	10,718	2.55	2.62	12,305	12,184
July	8,625	8,551	2.50	2.49	11,474	10,189
August	7,309	9,291	2.36	2.52	11,602	11,244
September	7,040	9,000	2.13	2.44	12,662	13,450
October	6,949	7,874	2.02	2.39	9,747	10,959
November	8,185	7,623	2.01	2.30	8,808	11,377
December	10,393	7,392	2.08	2.10	10,869	11,931
2010						
January	11,350	7,646	2.31	1.97	10,447	9,147
February	8,852	8,312	2.33	1.96	8,416	9,004
March	7,683	8,129	2.19	1.92	10,229	9,643

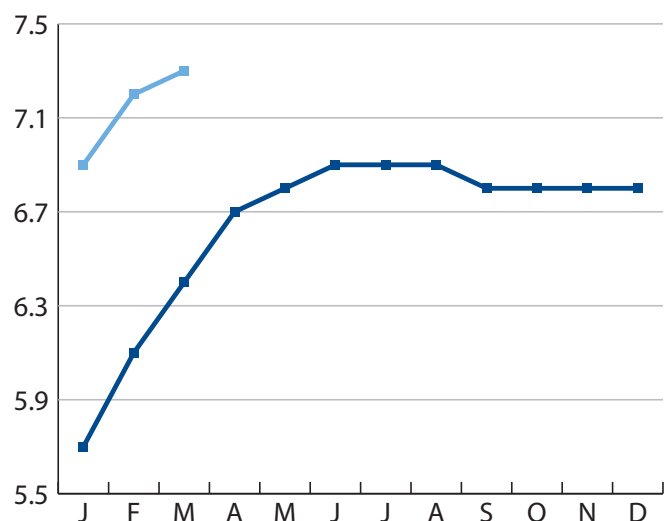
* These series have been adjusted to First Quarter 2009 benchmarks.

Employment Indicators

Nonagricultural Wage and Salary Employment
(Millions)

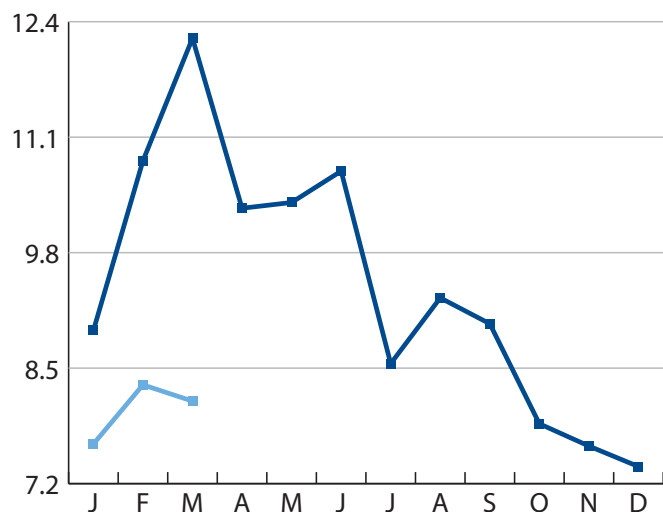


Total Unemployment Rate
(Percent)

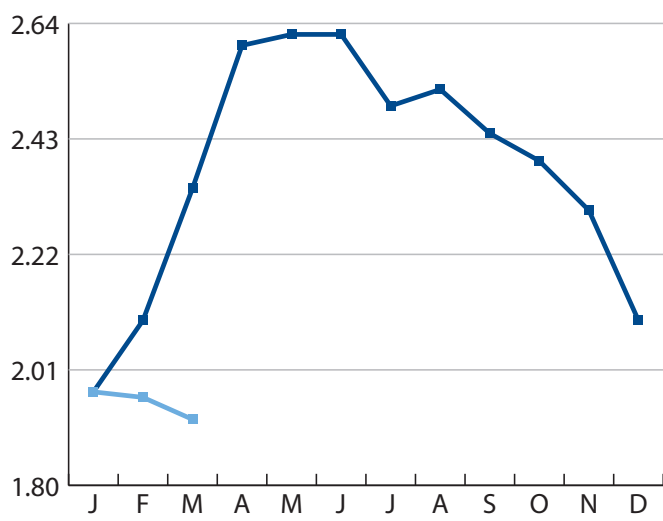


Unemployment Insurance Indicators

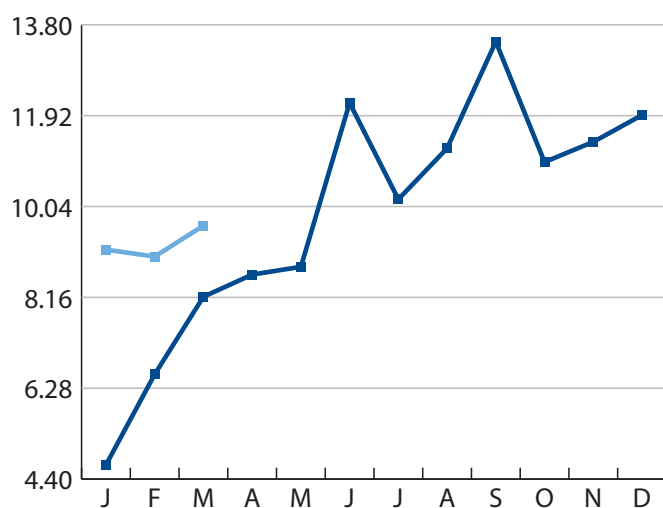
Average Weekly Initial Claims
(Thousands)



Insured Unemployment Rate
(Percent)




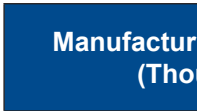



Unemployment Insurance Final Payments
(Thousands)






■ 2009 ■ 2010 January 2009 - March 2010

Goods Producing Employment*

 2009	Mining and Logging Employment (Thousands)		 Unadjusted	 Adjusted	 Unadjusted	 Adjusted
	Unadjusted	Adjusted				
January	10.8	10.9	195.4	203.2	250.2	251.6
February	10.5	10.6	190.8	199.3	245.4	247.3
March	10.4	10.5	190.2	195.4	243.2	244.8
April	10.2	10.4	190.5	192.7	240.4	241.7
May	10.1	10.2	191.0	190.7	238.7	239.7
June	10.1	10.1	192.1	188.8	238.3	237.6
July	10.0	9.9	192.8	188.2	237.1	236.7
August	10.1	10.0	192.0	186.7	236.0	235.1
September	10.1	10.1	189.4	185.4	235.5	234.5
October	10.1	10.0	188.4	185.8	234.7	233.8
November	10.1	10.0	187.6	186.0	234.9	233.6
December	10.0	9.9	185.5	185.0	233.6	232.3
2010						
January	9.7	9.8	178.6	185.7	230.5	231.8
February	9.7	9.8	170.0	177.6	226.9	228.6
March	9.7	9.8	173.0	177.8	227.7	229.2

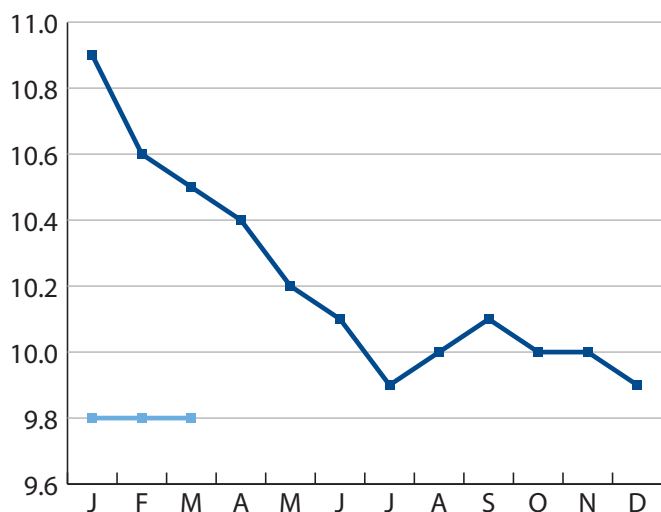
Trade Employment*

 2009	Wholesale Trade Employment (Thousands)		 Unadjusted	 Adjusted
	Unadjusted	Adjusted		
January	115.4	116.4	403.5	405.3
February	114.7	115.5	394.4	404.8
March	114.2	114.8	392.8	400.7
April	113.9	114.2	392.3	401.0
May	113.9	113.7	397.3	401.0
June	113.5	112.9	399.0	400.0
July	112.7	112.4	396.4	397.9
August	112.6	112.1	395.8	397.2
September	111.8	111.7	394.6	396.5
October	112.0	111.7	396.7	395.2
November	110.6	110.5	405.4	391.0
December	109.8	109.4	411.0	390.5
2010				
January	106.5	107.4	396.9	398.7
February	106.5	107.3	387.5	397.7
March	107.1	107.7	391.8	399.6

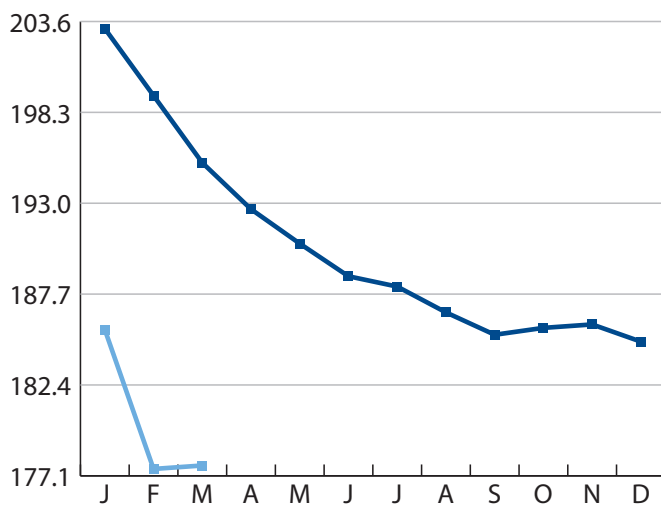
* These series have been adjusted to First Quarter 2009 benchmarks.

Goods Producing Employment

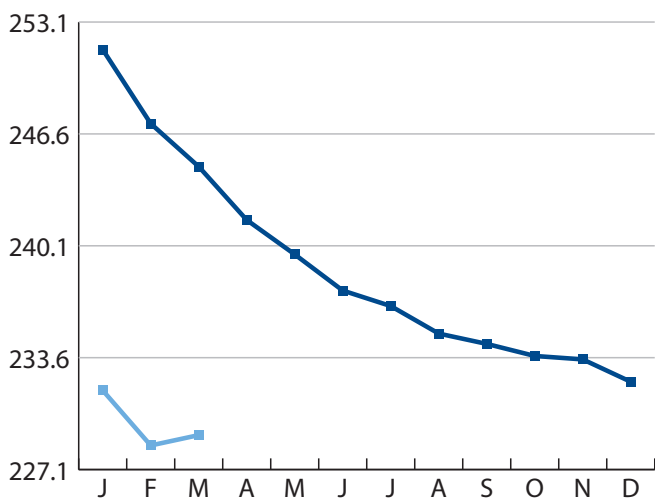
Mining and Logging Employment (Thousands)



Construction Employment (Thousands)

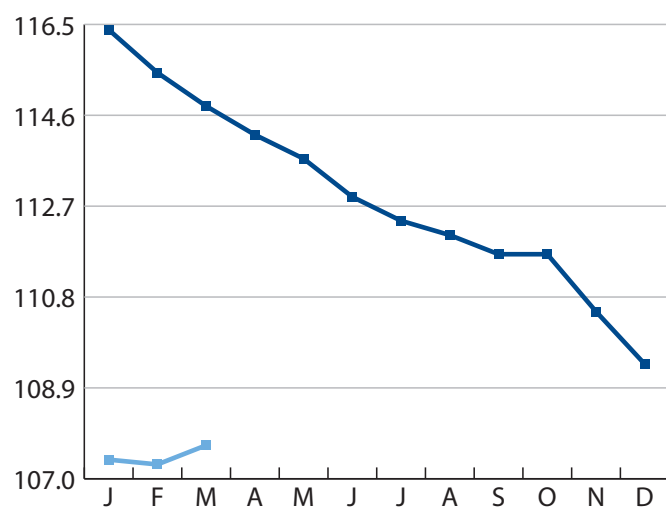


Manufacturing Employment (Thousands)

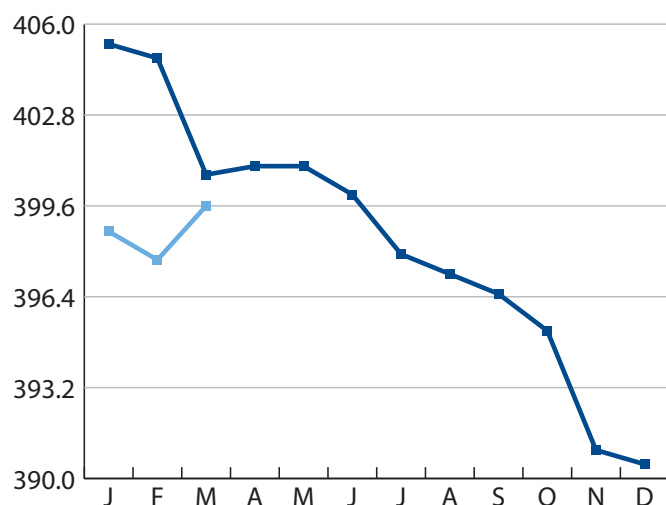


Trade Employment

Wholesale Trade Employment (Thousands)



Retail Trade Employment (Thousands)




2009


2010

January 2009 - March 2010

Transportation, Information, and Finance Employment*

 2009	Transportation, Warehousing, and Utilities Employment (Thousands)		Information Employment (Thousands)		Finance Employment (Thousands)	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	114.4	116.0	84.0	84.4	182.1	184.1
February	113.2	115.2	83.8	83.8	181.1	182.8
March	112.7	114.3	83.1	83.2	181.1	181.9
April	111.8	113.4	82.1	82.4	181.1	181.9
May	112.5	113.2	81.9	81.7	180.8	180.8
June	112.7	112.4	81.8	81.2	181.8	180.0
July	112.3	112.0	81.1	80.6	181.6	179.4
August	112.0	111.5	80.1	79.9	181.4	179.4
September	112.1	111.3	79.1	79.3	179.0	178.9
October	110.5	110.0	78.8	79.1	178.4	178.8
November	111.9	110.5	78.2	78.3	177.5	178.4
December	110.4	107.3	78.0	78.0	177.7	177.6
2010						
January	108.1	109.6	77.0	77.4	178.2	180.1
February	107.6	109.5	76.1	76.1	176.4	178.1
March	108.6	110.2	76.0	76.0	176.5	177.3

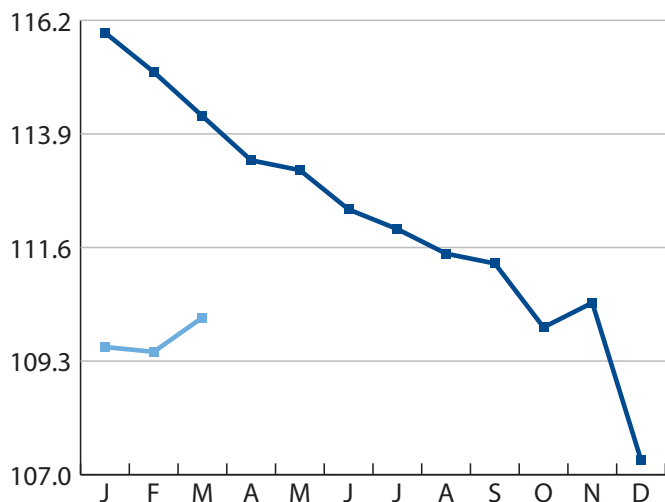
Service Employment*

 2009	Professional and Business Services Employment (Thousands)		Private Education and Health Services Employment (Thousands)	
	Unadjusted	Adjusted	Unadjusted	Adjusted
January	640.3	650.3	445.5	445.9
February	639.0	647.2	447.5	445.4
March	639.2	643.6	448.9	445.9
April	638.0	640.1	451.0	446.6
May	636.4	638.3	452.7	447.8
June	639.3	635.9	450.7	448.4
July	639.1	635.3	434.3	452.7
August	639.9	634.1	433.9	452.2
September	635.7	633.8	452.8	450.2
October	641.1	636.9	457.3	452.4
November	638.6	635.5	459.8	453.8
December	638.6	635.7	460.5	454.5
2010				
January	631.6	641.5	455.4	455.8
February	623.0	631.0	456.1	453.9
March	630.1	634.4	463.3	460.2

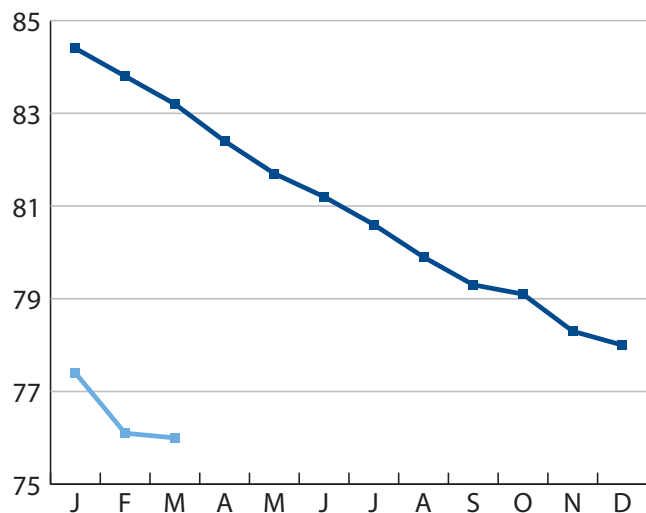
* These series have been adjusted to First Quarter 2009 benchmarks.

Transportation, Information, and Finance Employment

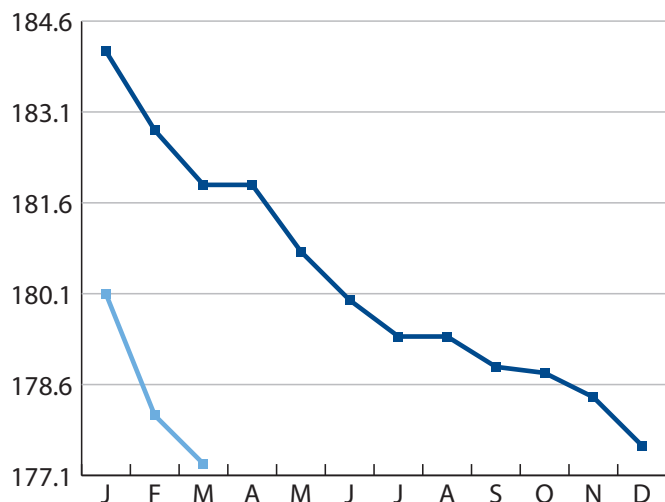
Transportation, Warehousing, and Utilities Employment (Thousands)



Information Employment (Thousands)

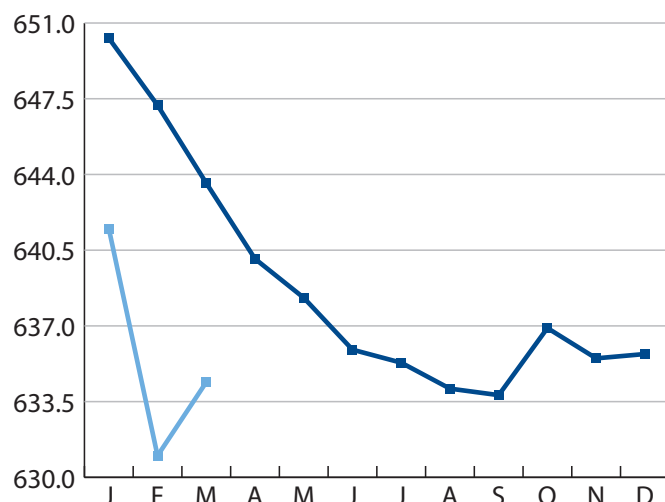


Finance Employment (Thousands)

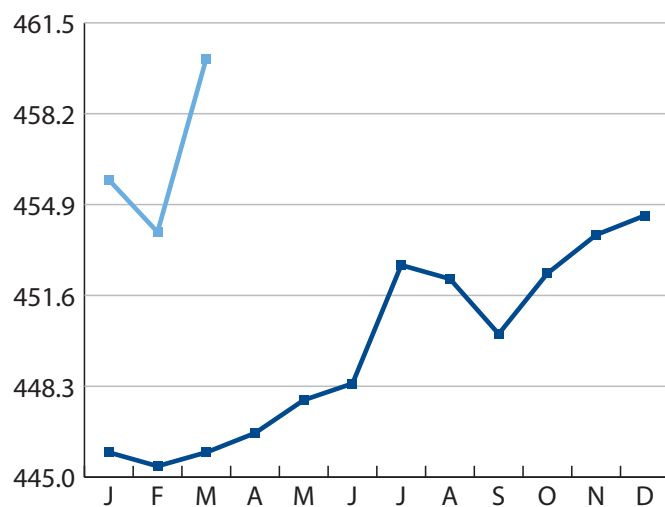


Service Employment

Professional and Business Services Employment (Thousands)




Private Education and Health Services Employment (Thousands)




2009 2010 January 2009 - March 2010

Service Employment* (Continued)

 2009	Leisure and Hospitality Services Employment (Thousands)		Miscellaneous Services Employment (Thousands)	
	Unadjusted	Adjusted	Unadjusted	Adjusted
January	320.2	342.6	185.0	187.4
February	321.9	342.4	185.4	187.1
March	328.4	339.4	185.9	186.6
April	339.7	341.6	186.3	186.4
May	354.6	344.5	187.0	186.1
June	364.0	341.8	188.4	186.3
July	363.7	341.5	188.4	186.4
August	360.6	340.5	187.4	186.1
September	347.8	341.7	185.4	185.9
October	333.1	336.6	186.0	186.3
November	324.9	334.8	185.9	186.5
December	321.3	332.7	189.5	189.7
2010				
January	317.3	339.5	188.0	190.5
February	313.8	333.8	189.2	190.9
March	326.9	337.9	194.2	195.0

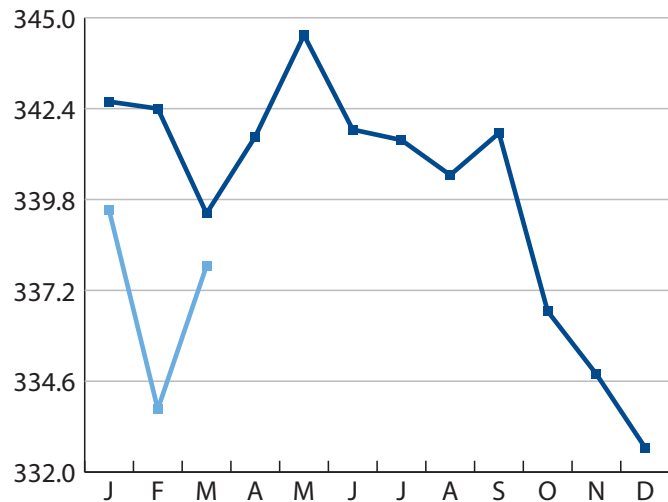
Government Employment*

 2009	Federal Government Employment (Thousands)		State Government Employment (Thousands)		Local Government Employment (Thousands)	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	162.3	162.7	148.9	153.1	385.0	382.7
February	162.0	163.2	155.2	152.6	386.7	381.9
March	162.2	163.3	157.0	153.3	389.0	382.7
April	166.6	167.5	156.4	151.6	387.4	382.2
May	166.7	167.0	152.3	152.7	389.8	381.8
June	166.2	165.7	148.6	153.2	391.5	382.7
July	167.3	165.7	145.0	152.5	358.6	376.1
August	168.4	167.2	146.8	153.4	353.8	376.7
September	167.1	167.5	156.5	154.3	363.6	372.9
October	168.5	168.5	158.2	154.2	373.0	371.5
November	168.7	168.4	158.8	154.9	377.3	370.5
December	168.9	168.4	158.2	156.2	375.2	369.5
2010						
January	169.6	170.0	148.8	153.0	371.6	369.4
February	169.2	170.5	158.4	155.8	367.6	363.0
March	172.5	173.7	158.8	155.0	373.4	367.4

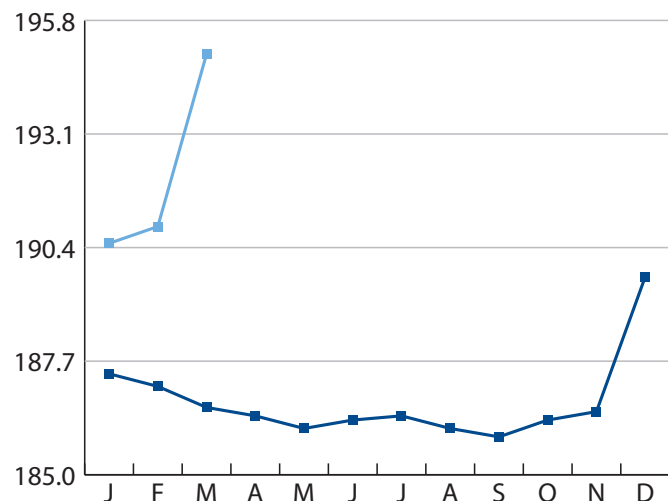
* These series have been adjusted to First Quarter 2009 benchmarks.

Service Employment (Continued)

Leisure and Hospitality Services Employment (Thousands)

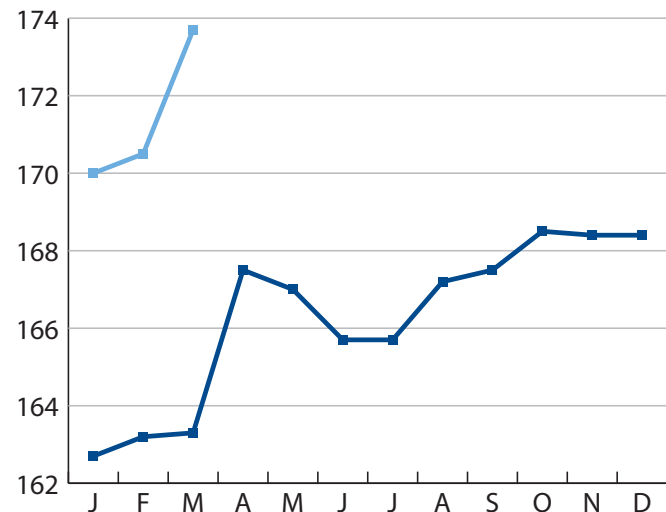


Miscellaneous Services Employment (Thousands)

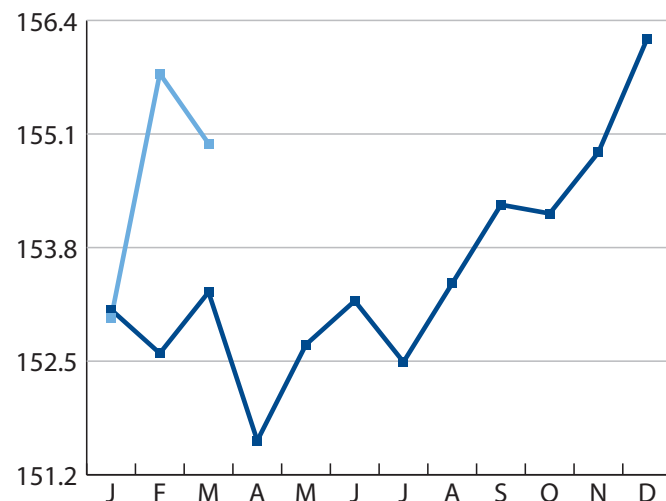


Government Employment

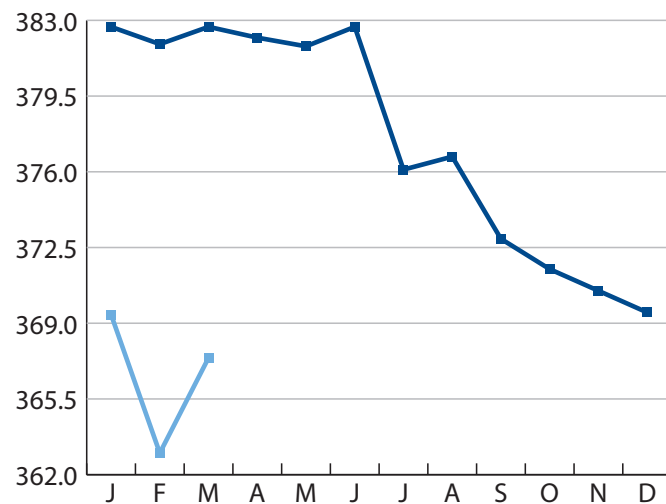
Federal Government Employment (Thousands)



State Government Employment (Thousands)





Local Government Employment (Thousands)



■ 2009 ■ 2010 January 2009 - March 2010

Manufacturing Production Worker Indicators*

	Average Weekly		Average Hourly Earnings (Dollars)		Deflated Average Hourly Earnings (1982-84 Dollars)	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
2009						
January	39.4	39.6	18.20	18.18	8.85	8.75
February	40.2	40.3	18.02	18.12	8.72	8.69
March	39.3	39.7	18.11	18.26	8.74	8.79
April	39.8	40.5	18.26	18.31	8.78	8.82
May	41.7	41.3	18.68	18.81	8.95	9.06
June	41.9	41.4	18.80	18.72	8.91	8.95
July	43.0	42.8	19.12	19.02	9.08	9.12
August	43.2	42.9	19.28	19.18	9.13	9.13
September	43.5	43.5	19.45	19.43	9.20	9.24
October	43.6	43.3	18.47	18.41	8.73	8.76
November	42.8	43.3	18.77	18.87	8.85	8.82
December	42.1	42.0	18.98	18.86	8.97	8.80
2010						
January	41.6	41.8	18.93	18.91	8.91	8.81
February	40.2	40.3	19.41	19.51	9.13	9.10
March	42.5	42.9	19.50	19.66	9.13	9.19

	Total Production Hours (Thousands)		Average Weekly Earnings (Dollars)		Deflated Average Weekly Earnings (1982-84 Dollars)	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
2009						
January	7,663	7,758	717.08	719.77	348.60	346.85
February	7,698	7,795	724.40	729.25	350.45	350.24
March	7,428	7,579	711.72	723.38	343.46	348.29
April	7,423	7,596	726.75	741.01	349.53	357.25
May	7,760	7,709	778.96	775.56	373.11	371.90
June	7,810	7,676	787.72	774.86	373.38	370.14
July	7,955	7,905	822.16	812.91	390.53	390.14
August	7,944	7,835	832.90	819.41	394.45	390.90
September	7,969	7,926	846.08	846.91	400.37	403.47
October	7,944	7,861	805.29	804.20	380.66	380.70
November	7,798	7,843	803.36	813.30	378.94	381.72
December	7,633	7,552	799.06	794.43	377.44	369.95
2010						
January	7,455	7,548	787.49	790.41	370.46	368.59
February	7,067	7,156	780.28	785.46	367.11	366.89
March	7,497	7,649	828.75	842.31	388.13	393.60

* These series have been adjusted to First Quarter 2009 benchmarks.

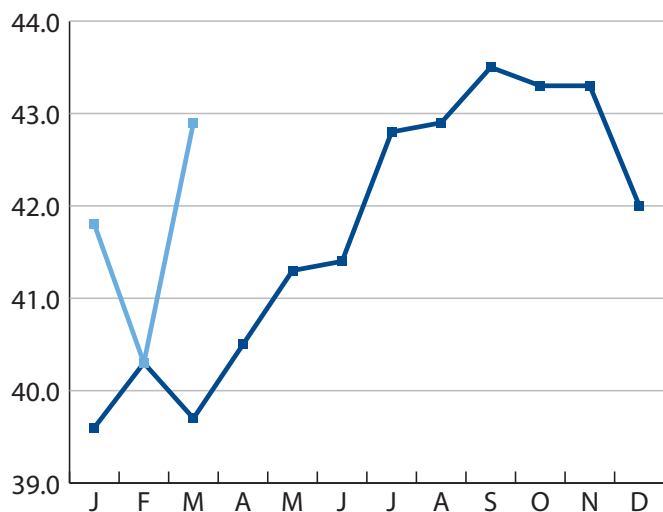
Manufacturing Production Worker Indicators

2009

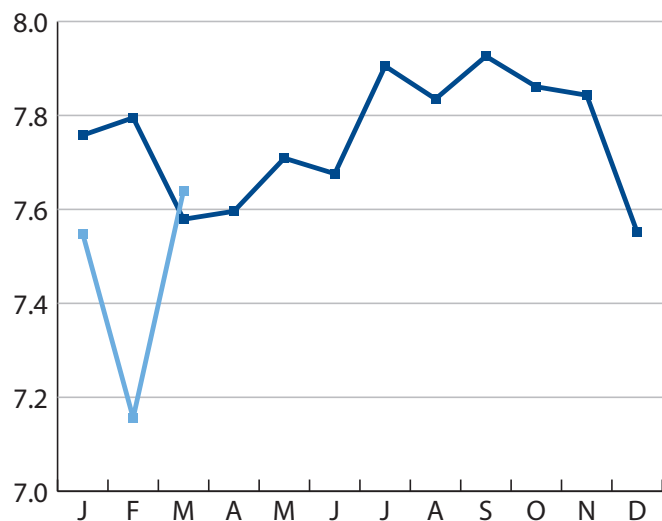
2010

January 2009 - March 2010

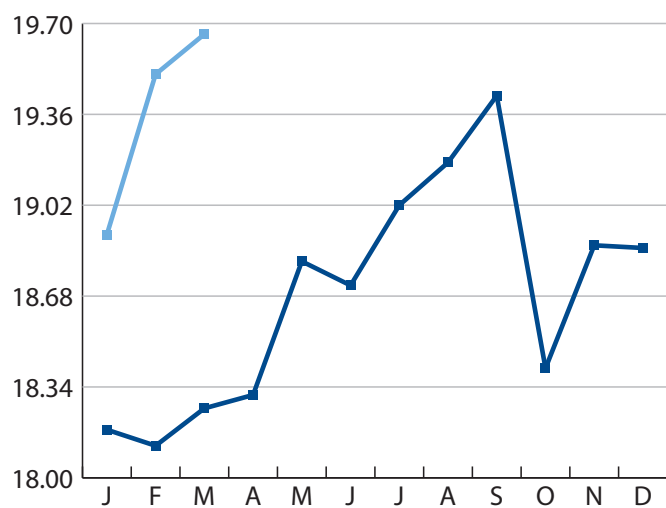
Average Weekly Hours



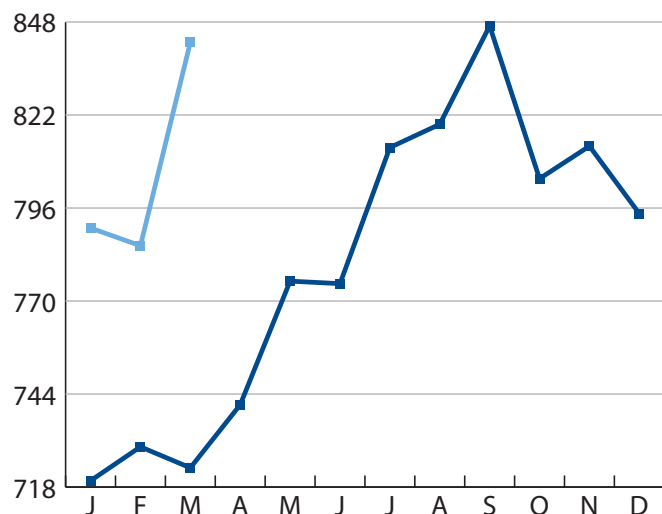
Total Production Hours (Millions)



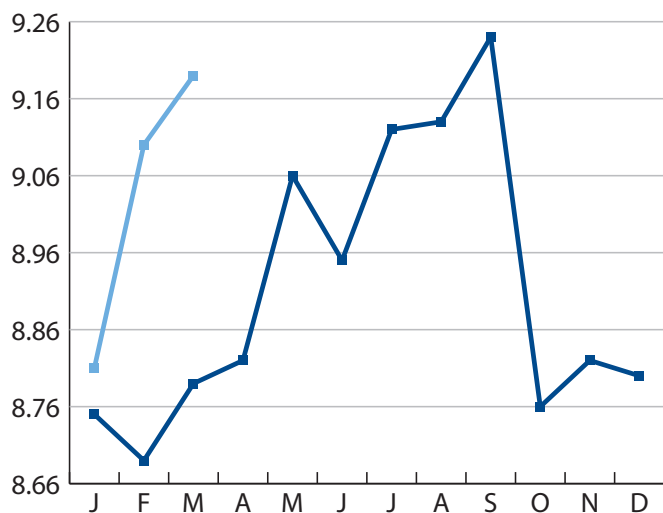
Average Hourly Earnings (Dollars)



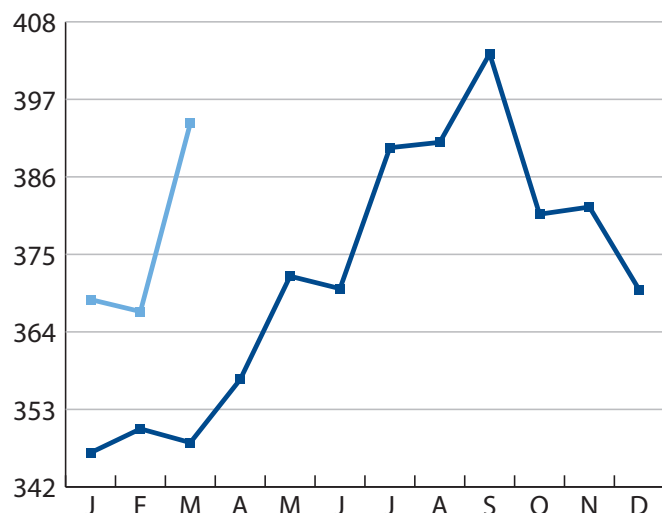
Average Weekly Earnings (Dollars)






Deflated Average Hourly Earnings (1982-84 Dollars)





Deflated Average Weekly Earnings (1982-84 Dollars)



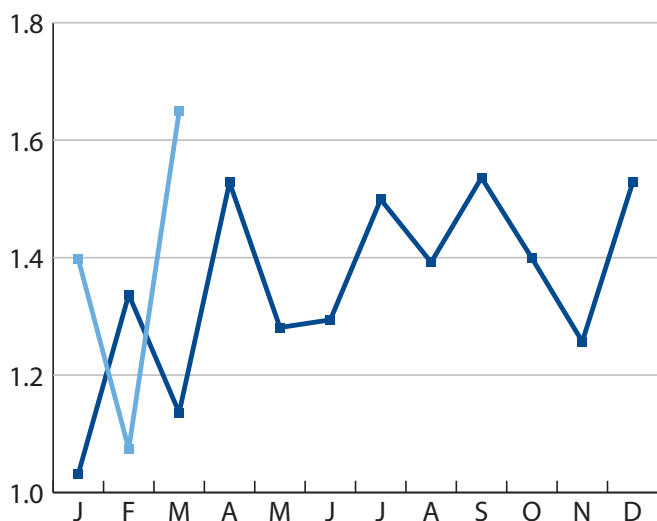
Business Indicators

 2009	Single Family Housing Permits		 2009	New Business Incorporations		 2009	New Vehicle Registrations	
	Unadjusted	Adjusted		Unadjusted	Adjusted		Unadjusted	Adjusted
January	887	1,032	January	1,096	1,066	January	23,181	24,774
February	1,306	1,337	February	1,146	1,140	February	20,790	26,162
March	1,266	1,136	March	1,156	987	March	24,232	24,209
April	1,710	1,528	April	1,327	1,140	April	28,551	26,574
May	1,473	1,281	May	1,074	1,017	May	28,224	25,062
June	1,501	1,294	June	1,073	1,042	June	32,286	27,452
July	1,699	1,499	July	1,118	1,123	July	29,941	27,653
August	1,453	1,392	August	1,038	1,073	August	34,980	30,587
September	1,432	1,536	September	973	1,026	September	37,400	35,650
October	1,323	1,399	October	1,002	1,087	October	25,115	24,620
November	1,010	1,257	November	857	1,086	November	20,452	26,925
December	1,157	1,528	December	993	1,074	December	24,186	28,799
2010			2010			2010		
January	1,200	1,397	January	1,043	1,015	January	25,597	27,356
February	1,049	1,074	February	1,002	997	February	20,926	26,332
March	1,838	1,649	March	1,394	1,190	March	31,467	31,436

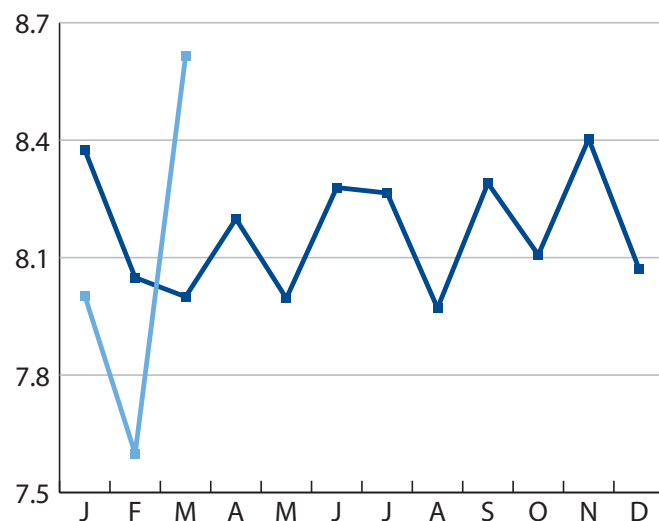
 2009	Taxable Retail Sales (Millions of Dollars)		 2009	Deflated Taxable Retail Sales (Millions of 1982-84 Dollars)	
	Unadjusted	Adjusted		Unadjusted	Adjusted
January	7,307	8,375	January	3,552	4,020
February	7,028	8,049	February	3,400	3,852
March	7,978	8,000	March	3,850	3,840
April	8,056	8,199	April	3,874	3,941
May	8,046	7,996	May	3,854	3,847
June	8,887	8,279	June	4,212	3,961
July	8,223	8,265	July	3,906	3,946
August	7,892	7,971	August	3,738	3,773
September	8,333	8,290	September	3,943	3,959
October	8,156	8,107	October	3,855	3,835
November	8,302	8,403	November	3,916	3,957
December	9,752	8,071	December	4,606	3,814
2010			2010		
January	6,983	8,003	January	3,285	3,718
February	6,635	7,599	February	3,122	3,537
March	8,591	8,614	March	4,023	4,013

Business Indicators

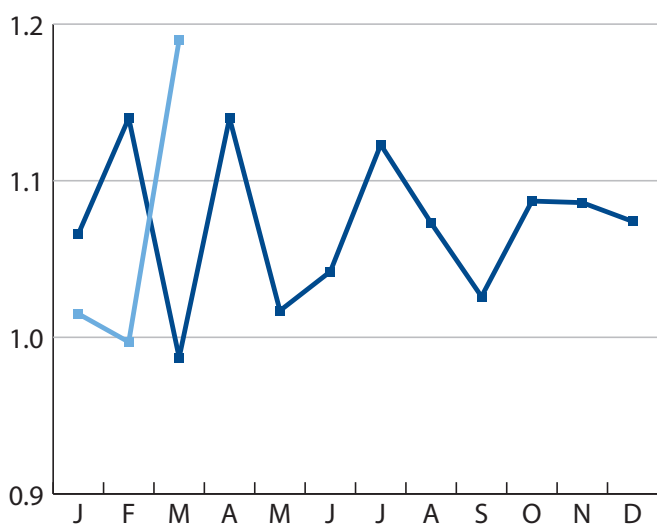
Single Family Housing Permits (Thousands)



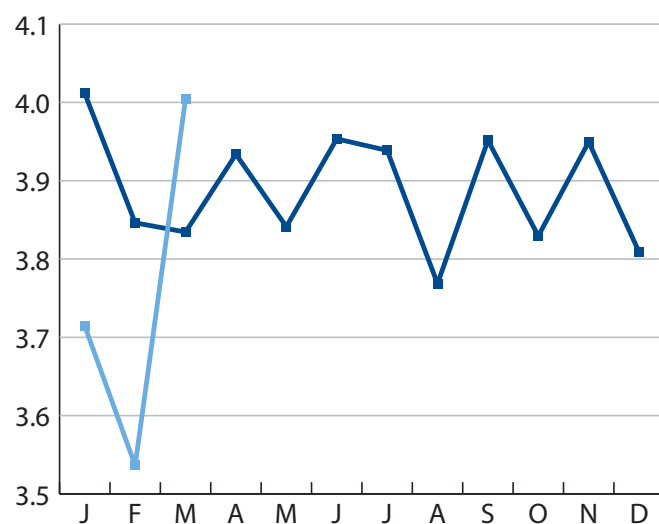
Taxable Retail Sales (Billions of Dollars)



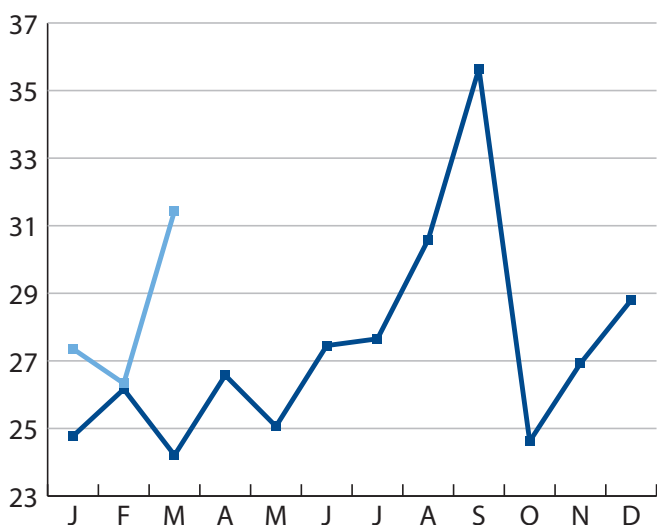
New Business Incorporations (Thousands)



Deflated Taxable Retail Sales (Billions of 1982-84 Dollars)



New Vehicle Registrations (Thousands)



Note: Data Summary Tables have been discontinued.

2009 2010 January 2009 - March 2010

Historical Summary

Performance of Indicators Over the Business Cycle

For those interested in studying the business cycle in Virginia, this publication includes several of the economic time series for which data is readily available on a monthly basis. From time to time, new series will be added and, if necessary, others presently included will be discontinued.

Business Cycle Turning Points

The beginning of a recession is defined as the month when aggregate economic activity in the U.S. reaches a cyclical high, from which it begins to turn down, and the end as the month when it reaches a cyclical low, from which it begins to turn up. On November 26, 2001, the National Bureau of Economic Research (NBER) announced a recession had begun in March 2001. On July 17, 2003, NBER announced the recession ended in November 2001. The NBER announced on December 1, 2008, that a recession had begun in December 2007.

Seasonal Adjustment

To correlate changes in a time series and changes in the business cycle, it is desirable to eliminate, insofar as possible, the effect of irrelevant factors from the data comprising the series. All series currently published in the *Virginia Economic Indicators* have been adjusted to minimize regular seasonal fluctuations in the data in order to show only activity related to the business cycle.

Historical Graphs

Historical graphs are published in the back of the fourth quarter issue for each year.

Data Sources

The data source for all series in this publication is the Virginia Employment Commission (VEC), except the following:

U.S. Census Bureau:

Single Family Housing Permits

Virginia Department of Motor Vehicles:

New Vehicle Registrations

Virginia Department of Taxation:

Deflated Taxable Retail Sales

Taxable Retail Sales

Virginia State Corporation Commission:

New Business Incorporations